

REMARKS

Claim 14 is objected to. Claim 14 has been amended as suggested by the Examiner.

Claims 22-35 stand rejected under 35 U.S.C. §112, second paragraph. The Examiner appears to object to the use of the term "unbinned". In addition, it appears that the Examiner finds that the claim suggests that all of the events are unbinned and that the disclosure indicates that some of the events are binned and some are not. Applicants traverse this rejection.

Firstly, the Examiner is referred to the final paragraph on page 7 and the first paragraph on page 8.

The meaning of binned (and thus of unbinned), is clearly set forth at page 7, line 28 to page 8, line 3. There is no question of its meaning and the claim is not unclear. In addition, the term "binned" is a term of the art, such that unbinned, means "without binning," even without the explanation and comparison referred to at the beginning of this paragraph.

As indicated at page 8, line 1, the "present invention, *in its most preferred form*, has only one event in each element of the reconstruction..." Clearly, the disclosure does teach that in a preferred embodiment, all the elements are unbinned. However, the claim is not limited to all of the events being unbinned, only to those being used in the reconstruction of the claims. Whether events are binned for other uses is, of course, not part of the claim.

As to the antecedent basis for "the unbinned ... events" pointed out by the Examiner in claim 22, claim 22 has been amended to conform with the wording used in claims 31 and 33.

Applicants submit that the amendments to claims 14 and 22 are purely cosmetic in nature and are inherent in the claims before amendment.

Claims 1 and 3-9 stand rejected under 35 U.S.C. §102(b) as being anticipated by Hasegawa. Applicants traverse this rejection and submit that Hasegawa does not provide a *prima facie* case of anticipation.

Claim 1 contains the limitation of "*separately* distributing a weight of *each* of the *individual* radiation events..." Applicants have not been able to find any reference in Hasegawa to this feature. In Hasegawa (as in Hudson) the events are binned or otherwise agglomerated before any reconstruction. In fact, the reference of the Examiner to "photons in a unit of time", is proof of one type of such agglomeration, which makes it impossible to *separately* distribute the a weight of each of the events as required by claim 1. When Hasegawa does acquire events individually (for emission reconstruction) there is no teaching of anything other than the prior art binning of events prior to reconstruction.

Claims 2 and 10-35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hasegawa in view of Hudson. Applicants traverse this rejection, and submit that the Examiner has not presented a *prima facie* case of obviousness.

Applicants submit that, as to the claims dependent on claim 1, Hudson does not overcome the lack of teaching of Hasegawa mentioned above with respect to the "individual events." In fact, Hudson at page 601, last two lines clearly states that the events are binned, so that separate distribution of weights is not possible. The reference referred to in Hudson does not state that individual events are distributed separately, only that the binned events are probabilistically distributed.

As to independent claims 22, 31 and 33, the Examiner has made a statement at these claims are unpatentable over Hasegawa and Hudson. However, in the extensive explanation given of this rejection, there is no mention of any of these claims. Thus, the Examiner has not presented any reasoning for the rejection of these claims and therefore no *prima facie* case of obviousness has been set forth. However, applicants submit that in neither Hasegawa nor Hudson is there any teaching of the reconstruction based on unbinned events.

As to the Examiner's requirement that an abstract on a separate page be supplied, the Examiner is respectfully referred to MPEP §1893.03(e), which clearly indicates that for a National stage of a PCT application, no such requirement exists and that it is "improper" for the Examiner to require that one be submitted.

Applicants point out that a PTO-1449 form was filed together with the application on October 14, 1999. The form was never received in return initialed by the Examiner. Applicants are resubmitting the form again and respectfully request that the references listed thereon be initialed by the Examiner to ensure that they appear on the face of the patent issuing on the present application. Applicants assume that the art has already been considered by the Examiner in accordance with MPEP §1893.03.

Applicants respectfully submit the application is in form for allowance. A notice to that effect is respectfully awaited. If the Examiner has any questions regarding this response, the Examiner is invited to call the undersigned at toll free telephone 1 (877) 428-5468. Please note that this is a direct line to the undersigned's Israel office, which is 7 hours ahead of Washington time.

Respectfully submitted,
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August 11, 2003
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INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

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Nat'l Phase of PCT/IL 97/00

Applicant(s)

前言

HEREWYNN

Group Art Units

Not yet assigned

U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS . (*Including Author, Title, Date, Pertinent Pages, Etc.*)

MEL 2 JOHNSON, C.A. et al.: "Evaluation of 3D reconstruction algorithms for a small animal PET camera", 1996 IEEE NUCLEAR SCIENCE SYMPOSIUM CONFERENCE RECORD (Cat. No. 96CH35974), Anaheim, CA, USA, 2-9 Nov. 1996, ISBN 0-7803-3534-1, 1996, New York, NY USA, pages 1481-1485, vol. 3, XP002049071, see page 1486, para B, Fig.

MEL 3 MANGLO, S.H. et al.: "TRANSMISSION MAXIMUM-LIKELIHOOD RECONSTRUCTION WITH ORDERED SUBSETS FOR CONE BEAM CT", PHYSICS IN MEDICINE AND BIOLOGY, vol. 40, 1995, pages 1225-1241, XP000601779, see page 1226, para 2 -page 1227, para 2.2

EXAMINER	<i>Martin Miller</i>	DATE CONSIDERED	12-11-03
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance or not considered. Include copy of this form with next communication to applicant.

Form PTO-A820
(also form PTO-1449)

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